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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Natchez-Adams School District

> Prepared By: Charles Wellborn MFC

Time Period Covered by This Plan: 2012 - 2021

Date Plan Prepared: 2012-01-24

Plan Type: Stewardship / Stewardship

This plan was developed in accordance with the rules of the Stewardship program.

Property Name: 16-T4N-R4W

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LANDOWNER INFORMATION

Organization: Natchez-Adams School District
Name: Natchez-Adams School District

Mailing Address: P.O. Box 1185

City, State, Zip: Natchez, MS 39120 Country: United States of America

Contact Numbers: Home Number:

Office Number: 601-445-2815

Fax Number:

E-mail Address:

Social Security Number (optional):

FORESTER INFORMATION

Name: Charles Wellborn, Adams-Wilk. Service Forester

Forester Number: 00446 Organization: MFC

Street Address: 75C Carthage Point Rd. City, State, Zip: Natchez, MS 39120

Contact Numbers: Office Number: 601-442-0472

Fax Number:

E-mail Address: cwellborn@mfc.state.ms.us

PROPERTY LOCATION

County: Adams Total Acres: 213 Latitude: -91.51 Longitude: 31.28

Section: 16 Township: 4N Range: 4W

DISCLAIMER

This information was derived from a small sampling of the forest resources. It reflects a statistical estimation that is only intended to be accurate enough for the purposes of making decisions for the short-term management of these resources. Events and circumstances may occur within the survey area that will physically alter the forest resources and therefore will not be reflected in this plan.

INTRODUCTION

This Forest Stewardship Management Plan will serve as a guide for accomplishing the goals and objectives for your property. In addition to addressing your specific goals and objectives, this plan includes recommendations for maintaining soil and water quality and protecting your forest from insects, disease, and wildfire. Recommendations are based on observation and assessment of the site.

OBJECTIVES

Timber Production

The goal is to produce high quality sawtimber. This will be accomplished through reforestation and timber stand improvement practices such as herbicide applications, prescribed burning, thinning at specified intervals, and other silvicultural practices. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Wildlife Management - General

The goal is to provide a diversity of habitats suitable for a variety of game and non-game wildlife species. Habitat management will focus on developing a variety of food, cover, water, and space. This will be accomplished by establishing and maintaining access roads and firelanes, providing openings within the forest, and the management of trees located within the Streamside Management Zone.

PROPERTY DESCRIPTION

General Property Information

The Mississippi River is the western boundary of this section which is about 213 acres in size. An old river lake can be found in the northern central part of the section and there are some smaller sloughs in the south part of the section. Because of it's location in the river bottom the section floods frequently. Access to the section is good during dry periods when the river is down. A bridge must be crossed across the Homochito river and private roads must be used that belong to the Kelly Williams trust. An easement is in the process of being renewed between the school board and the Williams trust. The bridge was also built by the Williams trust. Under the easement, logging will be allowed but the buyer must put up a sizable bond for the use of the bridge and the roads.

A pay as cut timber sale was sold in FY 2012, but has not been cut yet. Boundary lines were also painted in FY 2012.

Archeological or Cultural Resources

There were no archeological or cultural resources observed during our inspection of this property.

Water Resources

As mentioned in the general description of the property, an old river lake and smaller sloughs can be found on the property. Intermittent streams and drains identified will be managed in accordance with Mississippi's Best Management Practices.

Timber Production

The goal is to maximize the production of high quality timber. This will be accomplished through the application of timely thinning and other silvicultural practices designed to enhance timber quality and growth. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

Interaction with Surrounding Property

Prescribed practices should be carried out in a manner that will minimize adverse impacts on surrounding properties. Consideration should be given to potential air, water, visual, and other impacts. In addition, practices carried out should have positive effects on the surrounding community such as improved wildlife habitat and soil stabilization.

Soils General

Soils were evaluated on the property to determine the suitability of the site for the proposed activities. Forest practices were planned so as to minimize erosion or other adverse effects on the soil. The following soils are identified for this property:

SOIL TYPES

Crevasse

The Crevasse component makes up 52 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of sandy alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria. The Bruno component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on natural levees. The parent material consists of sandy alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria.

Sharkev

The Sharkey component makes up 44 percent of the map unit. Slopes are 0 to 2 percent. This component is on backswamps. The parent material consists of clayey alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is very high. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The Tunica component makes up 33 percent of the map unit. Slopes are 0 to 2 percent.

This component is on alluvial plains. The parent material consists of clayey alluvium derived from sedimentary rock over loamy alluvium derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is moderate. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Convent

The Convent component makes up 41 percent of the map unit. Slopes are 0 to 2 percent. This component is on natural levees, flood plains. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The Bruin component makes up 31 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy, vigorously growing stand is the best defense to an attack from a variety of forest insects, plants and pathogens.

Insects and Diseases

Trees are subject to attack from insects and diseases. Different insects and diseases affect trees according to the age, species, and condition of the trees. Planted stands of pines and pure stands of hardwoods are particularly susceptible to attack. Since there are many different insects and diseases, no attempt will be made here to explain all of them. The property should be inspected at least annually for possible signs of insect and disease activity. Some things to look for are:

- Unseasonable leaf fall
- Discoloration of leaves or needles
- Pitch pockets on pine trees
- · Heavy defoliation of hardwood leaves
- Groups of three or more dying trees within a stand

This list does not cover all instances of insect or disease attacks. If anything unusual is noticed, report it to a forester. In most cases, insect and disease problems can be controlled if discovered early.

Fire Protection

Your forest should be protected from wildfire at all times. The best way to protect your investment is by establishing and maintaining firebreaks around the property. Guidelines for establishment and maintenance of firebreaks may be found in Mississippi Forestry Commission publication #107, *Mississippi's Best Management Practices*.

Grazing

Tree seedlings should be protected from grazing until such time as the terminal bud of the sapling is beyond reach of livestock. Domestic livestock should be denied access to the tree planting area.

Boundary Lines

It is the responsibility of the landowner to ensure that all property lines and boundaries designating areas to receive forestry work are clearly identified and visible to all contractors

Boundary lines were painted in FY2012. They are scheduled to be painted in 2015, 2018, and 2021.

Note: Some forest practices may cause temporary adverse environmental or aesthetic impacts. These practices will only cause short-term adverse impacts where they are installed. Special efforts will be made to minimize adverse effects when carrying out any of the practices. Examples include: site preparation, planting, prescribed fires, firebreak installation and maintenance, road installation and maintenance, pesticide applications and timber harvesting.

Water Quality Protection

The objective of the landowner is to protect, preserve and enhance all water sources on or transecting the property. This can best be achieved by implementation of Best Management Practices in all aspects of the management of the property.

Wildlife Management General

The goal is to provide a diversity of habitats suited for a variety of game and non-game wildlife species. Habitat management will focus on providing a variety of food, cover, water, and space. This will be accomplished, in part, by establishing and maintaining

access roads and firelanes, providing openings within the forest, and leaving mast producing and den trees.

Timber Management

Timber management goals for this property are to manage timber resources in such a manner as to maximize timber production throughout the life of the stand.

STRATA

Strata 1

Strata Description

Strata 1: Stand 27

Acres: 34

Willow and sycamore are the major species that can be found in this stand. The stand runs adjacent to the Mississippi River from the North line of the section to the south line. The stand is well stocked and most trees are pulpwood size with some sawtimber size trees scattered throughout the stand. It is basically an SMZ between the section and the river.

Stand Recommendations

This stand will be allowed to grow for the length of this plan and possibly some trees might be removed during sales on adjacent stands. It will managed as a streamside management zone (SMZ).

Strata 2

Strata Description

Strata 2: Stands 25 and 17

Acres: 67

Cottonwood, box elder, willow, overcup oak, Nuttall oak, hackberry, sweetgum, ash, sycamore, and cypress are the predominate species in this stand. The stand is well stocked, with mainly pulpwood and cottonwood sawtimber throughout the stand. A large amount of undesirable species such as box elder can be found in the understory. This stand is split into two parts that are divided by the road and gas line that run North to South through the section.

Stand Recommendations

This stand will be managed for mixed hardwood production on a 55-year rotation. During this time, management activities such as thinning to remove poor quality trees and improve growth, and controlling undesirable species will be done to keep stands at full production.

Activity Recommendations

Harvest

The aforementioned pay as cut sale for FY2012 has already been sold, but not cut yet. In this sale, undesirable species will be removed from the understory to improve the species composition and the large cottonwood will be removed to salvage them. This should improve the quality and growth of the stand.

Strata 3
Strata Description

Strata 3: Stands 29 and 19

Acres: 84

The date of origin of this stand is 1988, so at the time of writing it is about 24 years old. Sycamore, ash, box elder, and cottonwood are the predominate species and the trees are mainly pulpwood sized. This stand was clearcut and all the remaining trees were chainsawed. The remaining undesirable species were injected with herbicide to control them. The stand has been allowed to sprout back and the river and wind has deposited seed for other species such as cottonwood. The stands have developed slowly, but have finally come through the vines. This strata is also divided by the road and gas line as is Strata 2.

Stand Recommendations

This stand will be managed for mixed hardwood production on a 55-year rotation. During this time, management activities such as thinning to remove poor quality trees and improve growth, and controlling undesirable species will be done to keep stands at full production.

Activity Recommendations

Harvest

A hardwood thinning is scheduled for FY2020. A pulpwood thinning could probably be done now, but based on our past experience with pulpwood sales, we have not had much success. The sawtimber volume of the stands will have to increase to make it feasable for buyers to put up the large bonds required. This will be a thinning from below, with some cottonwood and sycamore sawtimber removed to salvage them.



NATCHEZ-ADAMS SCHOOL DISTRICT
S16, T4N, R4W, ADAMS COUNTY MISSISSIPPI
2012 to 2021
213 +/- ACRES





S16, T4N, R4W Legend map



| December | Paul | ndam. Camana | Dou | undam, Lines (cent) | Cobe | ad Land Classification |
|--------------------------------------|----------------------|--|--------|---|--------------|---------------------------------------|
| Property | Bou | ndary Corners | | undary Lines (cont) | Scho | ool Land Classification |
| Property | \sim | Property | \neq | Forest Health | = | Forest Land |
| Category 1: Stands | · * | Section | \geq | Invasive Species | | Farm/Residential Land |
| Clear Cut | \circ | Quarter Section Areas | \neq | Management Compartment Military Area | | Residential Land Agricultural Land |
| Non-Stocked | | Areas | \neq | Natural Area | | Industrial Land |
| Reproduction | Stri | ictures | = | Property | | Recreational Land |
| Sub-Merchantable | Juli | Barn | \neq | Recreation | | Catfish Farming Land |
| Pulpwood | | Tractor Shed | = | Rights of Way | | Other Land |
| Chip-n-Saw | - | Out Building | \neq | SMZ | | Commercial Land |
| Sawtimber | • | Single-Family | = | Special Use | | Commercial Land |
| Poles | - | | = | Stand | Man | agement Compartment |
| L Foles | - | | = | Surface Mining | | Management |
| Category 2: Stands | | Club House | = | Threatened/Endangered Species | | Regeneration |
| ☑ Clear Cut | | Office Building | = | Visual Buffer | | Site Preparation |
| Non-Stocked | | | | Visual Buller | | Post Plant |
| Reproduction | - 5 | Warehouse | Fire | Control | | Site Improvement |
| Sub-Merchantable | × | Chicken House | | Temporary Line | | Vegetation Control |
| Pulpwood | | Horse Stall | 3 | Permanent Fire Break | | Stand Improvement |
| ☑ Chip-n-Saw | | | | S / S / Marione / M o D / Gall | | Invasive Species Control |
| Sawtimber | | Hog Pen | Wile | dlife (Lines) | | Harvest |
| Poles | | | | Green Strip | = | Fire Protection |
| | Ŏ | | | o con our | = | Technical |
| Category 3: Non-Forest Stands | | Hospital | Fire | | | Wildlife Management |
| Non-Forest | H | | | Mitigation Burn | | Property Activities |
| | H | Dr. Clinic | | Silviculture Burn | | Roads |
| Category 4: Not in Plan Stands | | State Facility | | Site-Prep Burn | | SMZ |
| Not in Plan | | | | Wildfire | | Forest Health |
| | | Work Center | | | | Recreation |
| Category 5: Features Only Plan Stand | | | Sch | ool Land Lease | | Site Restoration |
| Features Only Plan | - | Prison | 111 | Hunting | | |
| | - | School | | Minerals | Tran | sportation (Lines) |
| Restricted Sites | 42 | Church | | Recreation | / | City Streets |
| × Archeology | 4 | Mosque | | | _ | County Roads |
| + Cemetery | 4 | Synagogue | Res | stricted Area | \leq | 3 Digit Highway |
| Red-Cockaded Woodpecker | 4 | Other | | SMZ | \mathbf{z} | Interstate Highway |
| ▲ Gopher Tortoise | | | | Archeology, | \leq | US Highway |
| Picture Bogg Plant | Crui | ise Plots | | Cemetery | \leq | State Highway |
| | \Diamond | Pre-Cruise | | Visual Buffer | \mathbf{z} | Natchez Trace Parkway |
| Forest Health (Points) | | Post-Cruise | | Special Use | \mathbf{z} | Runways/Airports |
| Cogan Grass | | | | Natural Area | 7 | Active RR |
| ★ Kudzu | Oth | | | Education | \geq | Abandoned RR |
| Japanese Climbing Fern | - | Towers | | Recreation | | |
| Chinese Tallow | | Logging Deck | | Military Area | Hydi | rology (Lines) |
| Privet | | Locked | | Large Utility | \mathbf{Z} | Mississippi River |
| Southern Pine Beetle | | UnLocked | | Red-Cockaded Woodpecker | \leq | Major River |
| ▲ Sirex Wasp | | Water | | Gopher Tortoise | \geq | Primary Stream |
| ▲ IPPS | | Oil | | Picture Bogg Plant | | Intermittent Stream |
| 11. 1-1 (8-1-1-) | - | Natural Gas | | Coal | H | Canal |
| Hydrology (Points) | Dura | ant Danda/Taile | | Gravel | \geq | Ditch |
| Concrete Dam | Proj | perty Roads/Trails | | Dirt | \geq | Earthen Dam |
| Beaver Dam | = | Drive Ways | | Water | 1 | Concrete Dam |
| Carthen Dam | = | Access Road | | Oil | I lection | ties (Lines) |
| Permanent | = | Logging Road | | Natural Gas | Cull | Large Electrical |
| Temporary | = | Skid Trail | For | est Health (Polygons) | - | Large Electrical |
| Wooden | - | Farm Road | 101 | Cogan Grass | - | Local Utility |
| Other Culvert | == 3 | Hiking Trail Horseback Riding Trail | | Kudzu | | Large Pipeline Small Pipeline |
| Pond | | Horsepack Kluing Irali | | Japanese Climbing Fern | - | Gas Line |
| Folia | Bou | ndary Lines | | Chinese Tallow | - | Utility Line |
| Wildlife (Points) | | Archeology | | Privet | 4 | Water Line |
| Food Plot | = | Cemetery | | Southern Pine Beetle | | rvacci Lilic |
| Water Hole | = | Drilling Sites | | Sirex Wasp | | |
| Feeder | \rightleftharpoons | Education | | IPPS | | |
| - Louisi | _ | | | | | |

Stand Activity Summary for Natchez-Adams School District 16 4N 4W

Filters Applied: County: Adams

Client Class:
District:

Client: Natchez-Adams School Dis

STR: 16 4N 4W

Activity:

Year: 2012 Through 2021

| STR | Strata | Stand | Activity | Acre | Est. Cost | Est. Revenue |
|----------|--------|-------|---|------|--------------|-----------------|
| 2012 | | | | | | |
| 16 4N 4W | 2 | 17 | Harvest, Mechanical, Thin, Machine, Misc Hardwood | 7 | \$171.50 | \$3,156.97 |
| 16 4N 4W | 2 | 25 | Harvest, Mechanical, Thin, Machine, Misc Hardwood | 60 | \$1,500.00 | \$27,612.00 |
| | | | Yearly Totals | 67 | \$1,671.50 | \$30.768.97 |
| 2020 | | | | | | |
| 16 4N 4W | 3 | 19 | Harvest, Mechanical, Thin, Machine, Misc Hardwood | 39 | \$975.00 | \$9,383.40 |
| 16 4N 4W | 3 | 29 | Harvest, Mechanical, Thin, Machine, Misc Hardwood | 44 | \$1,105.25 | \$10,636.93 |
| | | | Yearly Totals | 83 | \$2,080.25 | \$20.020.33 |
| | | | Grand Totals | 150 | \$3.751.75 | \$50.789.30 |